

ABSTRACT

A database architecture and method of using a database is disclosed. The database is intended for use with a product stress testing system in which a large number of different modules may be subjected to a variety of stressors including environmental stressors and functional load testing. The database also enables a wide variety of test and communication equipment to be used in an efficient manner to test and communicate with the module being tested. Generic commands may be translated to test and communication equipment specific command strings as well as module specific command strings. Data collected from these various devices by the stress testing system may also be parsed and stored in fields associated with the corresponding module being tested. The product table, result table, process table, and equipment command & communication tables are interrelated through defined data associations. These data entities and their mutual data relationships revolve around the module being subjected to the stress test. In this way the stress test results may be associated with the various products, the results may be mapped against product-specific test criteria, and generic commands may be translated to product-specific commands. A virtual oven may be used as the stress-testing system and includes a logical grouping of modules, a controller, test instruments which are all connected via a network to the database for collection of the data, control of the system, and generating displays and reports.